

CITY OF NEWPORT BEACH

BUILDING DEPARTMENT

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SOLAR PHOTO-VOLTAIC SYSTEM OVER SINGLE FAMILY DWELLING

GUIDELINE TO ELECTRICAL SUBMITTAL REQUIREMENTS

- 1. Show the location of the main electrical service, AC/DC disconnects, all solar voltaic equipment, and PV arrays on the roof plan
- 2. Single Line Diagram: show array configuration, conduit and conductors sizes with derating calculations
- 3. Inverter Information: show model number, specification cut sheets, and maximum D.C. input
- 4. PV Module Information: show open circuit voltage (VOC), short circuit current (ISC) max series fuse
- 5. Array Information: show number of modules in series, number of parallel source circuits
- 6. Wiring and Over Current Protection: show conductor ampacities, adjusted with all derating factors show rating and location of all Over Current Devices (OCD)
- 7. System Labels and Warnings: show required signage on the plans per 2007 CEC- Article 690
- 8. Grounding Details: show equipment ground conductor, ground electrode conductor from inverter to ground rod or ufer ground
- 9. Disconnects: show AC/DC disconnects at inverter. DC disconnect required prior to DC array conductors penetrating the surface of the roof or entering the building
- 10. System Calculations: show (VOC) calculated 1.13 (temperature correction factor for City of Newport Beach) (ISC) calculated x 1.25% (NEC 690) x 1.25% (UL 1703)